SELF-PRESERVATION is the keystone in the arch of war, because it is the keystone in that greater arch called life. No normal man wishes to be killed in battle, though he may long to die in battle rather than to die in his bed. He does not wish to do so, because there is no virtue in mere dying, for virtue is to be sought in living and living rightly. In the days of hand-to-hand fighting, it was only right for a commander to be in the front line, the battle might be decided in ten minutes, and often had he been elsewhere he might as well have been out of the picture altogether. In the days of the flintlock musket it was much the same, fire was delivered at from 100 to 50 paces, and battles were sometimes decided by a bayonet charge. Then came the rifle, and decision is prolonged; it may be dragged out to days, weeks and even months, as was the case in the World War. What does this mean? It means that generalship has been rendered more elastic. Today, the general can frequently retire

from the front altogether, and the more self-protective this front becomes the more often can he do so. But when he is attacking he must be there on the spot, not to direct only but to encourage; for however exalted may be his rank, he should never forget that he is still a soldier. As I have just shown, down to 1865 this idea held good, and though the vastly increased range of the Minié rifle undoubtedly rendered generalship more hazardous, it remained essentially as it always had been. It was not weapon power alone which forced the change, though the increasing range of weapons playing consciously, or unconsciously, upon the instinct of self-preservation may have created a sentiment to avoid danger. I think it did, and as this sentiment began to rise generalship began to wane.

Other factors were, I believe, more important. I have mentioned size and complexity of organization, and to these I will now add age. Old generals have always existed, but in the Napoleonic Wars, the average age of the higher commanders was under forty; at Waterloo,

Napoleon was forty-six and so was Wellington. In the American Civil War it was much the same. In my book—*The Generalship of Ulysses S. Grant*[1]—I pointed out that, in 1861, the average age of twenty Federal and Confederate officers who, as generals, played leading parts in the war, was thirty-eight and a half years. In the Franco-Prussian War, the age was more advanced, but this war was so brief that little opportunity was offered for the younger men to rise in rank. It was so successful, and its success could so clearly be traced to superior organization, superior tactics and superior strategy, that after the war it was overlooked that colonels still *led* their battalions into action, and that all but the highest grades of generals were *on* the battlefield and *within* the bullet zone. Some years ago now, I visited the battlefield of Rezonville, and a little west of the village I came across a small bench upon which the King of Prussia was seated on the evening of August 18th, 1870, when he received a message from

[1] *The Generalship of Ulysses S. Grant*, Colonel J. F. C. Fuller, p. 5 (1929).

Moltke announcing the victory of Gravelotte. At the time it struck me that for so august a personage it was extraordinarily near to the front. To-day, the King would have been at least fifty miles further back, or more likely in Berlin.

In war it is almost impossible to exaggerate the evil effects of age upon generalship, and through generalship on the spirit of an army. In peace time it may be otherwise, but in war time the physical, intellectual and moral stresses and strains which are at once set up immediately discover the weak links in a general's harness. First, war is obviously a young man's occupation; secondly, the older a man grows the more cautious he becomes, and thirdly, the more fixed become his ideas. Age may endow a man with experience, but in peace time there can be no moral experience of war, and little physical experience. Nothing is more dangerous in war than to rely upon peace training; for in modern times, when war is declared, training has always been proved out of date. Consequently, the more elastic a man's mind is, that is the more it is able to receive and

digest new impressions and experiences, the more commonsense will be the actions resulting. Youth, in every way, is not only more elastic than old age, but less cautious and far more energetic. In a moment youth will vault into the saddle of a situation, whilst old age is always looking round for someone to give it a leg up.

Physically an old man is unable to share with his men the rough and tumble of war; instinctively he shuns discomfort, he fears sleeping under dripping hedges, dining off a biscuit, or partaking of a star-lit breakfast, not because he is a coward, but because for so many years he has slept between well-aired sheets, dined off a well-laid table and breakfasted at 9 o'clock, that he instinctively feels that if these things are changed he will not be himself, and he is right, for he will be an *uncomfortable* old man.

Napoleon is a case in point. When a young man, as Baron von der Goltz writes, 'He passed half the day in the saddle or in his carriage, made all dispositions for his great army, and then dictated to his aides-de-camp ten, twelve,

fourteen, or more long letters, a labour which alone is sufficient to keep a rapid writer fully employed. "I am in most excellent health; I have become somewhat stouter since I left," he wrote from Gera to the Empress Josephine, on October 13th, 1806, at two in the morning, "and yet I manage to do some fifty miles a day on horseback, and in my carriage. I lie down at eight, and get up again at midnight; I often think that you have not then as yet retired to rest?" Such restless activity on the part of the general is the first condition of connected and rapid action in war."[1]

Then a few years later, when only forty-one years of age, he complained that he lacked his former vigour. 'The smallest ride is a labour to me,' he wrote; it was much the same with Frederick the Great also. When forty-eight years old he 'poured out his heart to his friend d'Argens: "I have to perform the labours of a Hercules at an age when strength forsakes me, debility increases, in one

[1] *The Nations in Arms*, Colmar von der Goltz, English Edition, p. 376 (1906).

word when hope, the comforter of the distressed, begins to fail me." [1]

Thus we see how surely the physical is the foundation of the moral, and how these physical defects, for defects they are in war, react upon a general's moral sense by subordinating it to intellectual achievements. More and more do strategical, administrative and tactical details occupy his mind and pinch out the moral side of his nature. Should he be a man of ability, he becomes a thinker rather than a doer, a planner rather than a leader, until morally he is as far removed from his men as a chess player is from the chessmen on his board. The more he is thrown back upon the intellectual side of war, the more sedentary he becomes, until a kind of military scholasticism enwarps his whole life.

The repercussion of such generalship on subordinate command has always been lamentable, because whatever a general may be, he is always the example which the bulk of his subordinate commanders will follow. If he becomes an office soldier, they become office soldiers;

[1] *Ibid.* p. 125.

not only because his work makes their work, but because his morale makes their morale: how can he order them into danger if he remains in safety? If the general-in-chief does not face discomfort and danger neither will they; if they do not, neither will their subordinates, until the repercussion exhausts itself in a devitalized firing line.

The years which followed the Franco-Prussian war saw many changes. Germany rapidly became industrialized, and the spirit of industry, which is essentially material and mercenary, surreptitiously crept into her army, which for forty years dominated military thought. Bulk weight of numbers, in the footsteps of bulk weight of commodities, became the prevailing doctrine of war. In France there arose what has been called the moral school of war, which in fact was not so much a moral school as an intellectual one. There was much talk of the offensive, of the will to conquer, of *la gloire* and of *à la baïonnette*, of urging the men on; but there was little talk of urging the generals forward. It was in truth a demoralizing school, because,

whilst the men were exhorted to die for their country, the generals were not encouraged to die for their men. In England we maintained the old idea, anyhow in its greater part, and were despised by foreign soldiers for so doing. As late as the South African War, personal contact between general and firing line was normally maintained; but when the World War broke out, so intellectually unprepared were our higher commanders, that they were at once sucked into the vortex of impersonal command which had been rotting generalship on the Continent for forty years.

The horde army paralysed generalship, not so much because it changed tactics, but because it prevented tactics changing; the one idea being, not to improve the quality of fighting, but to add to the quantity of fighters. New weapons were introduced yearly; but in its essentials the old tactics remained the same, numbers being considered the primary factor, with the result that directly a war was declared, tactics broke down and generalship became ineffective. But more detrimental still, numbers added vastly to

administrative difficulties, that is the handling of the *rear* services; so much so, that generalship was absorbed into quartermaster generalship, until in the World War all commanders superior to a divisional commander were nothing more than commissary generals.

As the general became more and more bound to his office, and, consequently, divorced from his men, he relied for contact not upon the personal factor, but upon the mechanical telegraph and telephone. They could establish contact, but they could accomplish this only by dragging subordinate commanders out of the firing line, or more often persuading them not to go into it, so that they might be at the beck and call of their superiors. In the World War nothing was more dreadful to witness than a chain of men starting with a battalion commander and ending with an army commander sitting in telephone boxes, improvised or actual, talking, talking, talking, in place of leading, leading, leading.

A fallacy, which may be largely traced to the telephone, is that the further a commander is in rear of his men, the

more general a view can he obtain, because he will be less influenced by local considerations. It is a fallacy because, within certain limits, the further he is in rear the further he will be away from moral actualities, and unless he can sense them he will seldom be able fully to reason things out correctly. It is true that with a large army, once contact is gained and the advanced guards are in action, a general-in-chief should not remain with the van. But supposing him to be a man who cannot control his emotions, and one so influenced by local conditions that they obliterate his intelligence, that is supposing him to be a thoroughly bad general, he will not avoid bird's-eye views by going twenty miles to the rear. For if he does so, on account of his limited self-control he will be as strongly influenced by the rear atmosphere and all it will convey to him, as he would have been by the forward atmosphere had he remained forward to breathe it. For such a man change of position is no cure, the only cure is change of appointment.

Should the general in question happen

to be a subordinate, then this fallacy is still more marked; for, unless he cannot resist interfering with platoons, it is local conditions which should monopolize his attention. The more bird's-eye views —the better; the more local sensations— the better; for each is a *real* picture and a *real* sensation; that is to say each is moral and physical as well as intellectual. A man who cannot think clearly and act rationally in the bullet zone is more suited for a monastery than the battlefield.

All these many influences are accentuated by age, and drag a general, the older he gets, faster and faster, to the rear. The more cautious a general becomes, the more he likes to think over things, and the more he thinks things over the more likely is he to seek assistance from others.

The German system saw some of these difficulties, more especially the intellectual ones. It recognized that old men do not make the best generals, and to overcome age and complexity it evolved the general staff, one of the most valuable and yet one of the most detrimental innovations in modern warfare.

Formerly there was a general's staff. This was composed of aides-de-camp, not spruce young officers who do flunkey work, but experienced men who delivered the general's orders and saw that they *were* carried out. Though this system of contact and control is just as valuable to-day as it was in the days of Napoleon, it has fallen into abeyance; for the present-day liaison officer is far removed from the old-fashioned aide-de-camp.

Such staffs are, however, not sufficient in themselves, because war has become so highly specialized and complex. Where the German system went wrong was that it superimposed a committee of irresponsible non-fighting officers on the general, creating a staff hegemony which virtually obliterated generalship. If the general was a tiger, his staff officers were selected from the lambs; if he was lamblike, then they were chosen for their tigerishness. The object was not to liberate the general from non-fighting detail and so allow him to develop his personality and exercise it; but to restrain or stimulate his personality and so establish a uniformity of doctrine and action. In brief, so that

excessive size would not set up excessive strain, the object was to crush out the personal factors and turn an army of millions of men into one immense smooth-running machine. This idea was as monstrous as it was brutal, and within three weeks of the World War opening it ignominiously broke down; for Moltke at Spa, 100 miles from the front, could exercise no more control over the German armies, or the vital right wing, than had he been in the moon.

No soldier can doubt the immense value of a general staff if it is the general's servant, and not the general's gaoler. I have said that the staff has no responsibilities; it has none, though it has duties; because it has no powers of decision or command. It can suggest, but it has no responsibility for actions resulting; the general alone is responsible, therefore the general alone should and must decide, and, more than this, he must elaborate his own decisions and not merely have them thrust upon him by his staff like a disc upon a gramophone. How many generals say to their staffs: 'Give me all the facts and information

and then leave me alone for half an hour, and I will give you my decision.' In place they seek a decision from their staffs, and frequently the older they are the more they seek it, because they so often feel that the latest arrival from the Staff College must know more than they do—sometimes they are not wrong. How many generals work out their own appreciations, dictate the gist of their orders, or in peace time work out their own training exercises? I have been a general staff officer for over fifteen years, and my experience suggests the answer: 'Very few.' When I took over command of a brigade, my brigade major was astonished because I insisted upon doing what he considered to be *his* work, but which in fact was essentially mine, making out the brigade training exercises, which under former brigadiers he had always done.

How do these things affect the personal factor in generalship? They obliterate it, and why? The staff becomes an all-controlling bureaucracy, a paper octopus squirting ink and wriggling its tentacles into every corner. Unless pruned with

an axe it will grow like a fakir's mango tree, and the more it grows the more it overshadows the general. It creates work, it creates offices, and, above all, it creates the rear-spirit. No sooner is a war declared than the general-in-chief (and many a subordinate general also) finds himself a Gulliver in Lilliput, tied down to his office stool by innumerable threads woven out of the brains of his staff and superior staffs.

In his overland campaign, in 1864, General Grant was called upon to control five armies of over half a million combatants, and to coordinate their movements in an area half the size of Europe. His headquarters staff consisted of fourteen officers. I wonder how this compares, let us say, with Sir Douglas Haig's staff at Montreuil during the last year of the World War?

All these many things, size, age, complexity, theory, staff organization, etc., rose to full growth during the years 1871-1914, and coupled with the unconscious whisperings of the instinct of self-preservation they drove the generals off the battlefields, and obliterating the personal

factor in command dehumanized warfare, and, consequently, brutalized it. Let us now see how this sorry state of affairs may possibly be remedied, possibly cured.

THE REMEDIES SUGGESTED

HAVING now diagnosed the various diseases, or at least the more virulent which to-day inflict generalship, the criticism I have indulged in will be of no great value unless remedies are suggested. These can be discovered either through the costly process of trial and error, that is by leaving things to chance and letting experience point out our mistakes; or else by reflection: that is to think things out as logically as we can, and then test our conclusions during peace time as far as peace conditions will allow. If this is done, in an unprejudiced and disinterested way, though we may not be able to establish perfect health, there can be little doubt that we shall reduce disease.

How are we to begin? By analysing the problem, which a moment's consideration will show, embraces three factors, namely, the general, his staff and the army, or in other words—the brain, nervous system and muscles of any military organization.

To start with the general, for as the

Chinese say, fish begins to rot at the head, how are we going to examine him? His work, like that of any other man, is cast in three spheres—the physical, the intellectual and the moral. I will examine these in turn.

Physically, health, vigour and energy are essential assets, and there can be no question, that normally they are the attributes of youth rather than of old age. When Napoleon said that no general of over forty-five years of age should be allotted an active command in the field, and that no general of over sixty should be given any but an honorary appointment, he was thinking of the physical factor in command.[1] Accepting these ages as the rule, a study of history will at once show us that he was not far wrong; for though there are exceptions to every rule, at least seventy-five per cent of the really great, not merely noted, generals in history, were under forty-five years of age.[2]

[1] Baron von der Goltz says: 'In the case of sexagenarians, however, the mind can scarcely work with unimpaired rapidity or memory retain its old vigour.'—*The Nation in Arms*, p. 126.

[2] See Appendix.

Here is our first great difficulty. Peace conditions do not permit of such a reduction in years. In our own army we find brigadiers of fifty-seven, major-generals of sixty-two, and lieutenant and full generals of sixty-seven, and though these ages could, I think, be reduced by several years, they cannot possibly be reduced to Napoleon's figure; for if the more senior ranks were compelled to retire at forty-five, or even fifty, few fathers would put their sons into the army, in fact the army would cease to exist.

The only way to tackle this problem is clearly to differentiate between peace and war conditions; to accept that during peace time the old, like the poor, will always be with us, and that consequently we must arrange things differently in war time.

The arrangement I suggest is this: accepting Napoleon's maximum of forty-five, a most carefully selected roster of officers between the ages of thirty-five and forty-five, officers who have shown high powers of command, should be kept, and irrespective of what their rank may be on the declaration of war, the whole

of the higher combatant commanders be selected from it; the older men being either put on the reserve list, or kept at home to raise and train new units.

At once two objections, far more obvious than real, will be raised to this suggestion, namely: (1) these officers will not possess the necessary experience in command, and (2) when war breaks out they will be strangers to their formations and know few of their officers.

As regards the first, it is perfectly true that for administrative work, experience in the routine of higher formations is of considerable value; but it is a complete myth to suppose, anyhow in our army, that extended powers of command can be cultivated by a brigadier, a divisional or an army commander. My experience is, that there are only two units in which command is a real and not merely a paper expression—the company and the battalion, and of course equivalent units in the other arms, after which command is so completely absorbed by administration that it ceases to be command at all. As a brigadier I found unlimited time at my disposal, so little could I command,

and, as a general staff officer to more than one able divisional commander, all I can say is, that were I ever to rise to to such a giddy height I should not find less. In our extremely well organized army, in which no brigadier, divisional commander, or commander-in-chief, is allowed to spend twopence without a shilling's worth of Treasury sanction, there is no responsibility and no real higher command.

As regards the second, it is true that old age from command point of view (from forty-five upwards) does not necessarily prevent a general getting to know his officers anyhow by name, and obviously there is a real advantage in this. But if, during war time, he is going to sit in a château, or dug-out, it does not matter much whether he knows the officers in the firing line or not. Also, if he is going to go down with an attack of lumbago, or a chill on the liver, each time he sleeps under the stars, again this advantage is somewhat discounted. As I maintain that the proper place for a general is with his men, sharing their discomforts and dangers, and as I will show

later on that new tendencies in war will enforce this, I consider that to put the younger men in command is anyhow the choice of the lesser of two evils, an evil which I will also show can be mitigated during peace time.

To turn to the second sphere. A man is intellectually at his best between the ages of thirty-five and forty-five, and this is proved by the fact that the majority of the great artists, scientists, philosophers, poets, inventors, business and professional men generally have accomplished their best work before the age of forty-five; because in middle life a man's opinions become set, imagination dwindles and ambition recedes. If a roster of aspirant commanders is kept, as I have suggested, then, during peace time, these officers should be thoroughly trained in their future duties, and should, whenever possible, be attached to the formations which in the event of war they will command, so that they may get to know their future subordinates. Training should sometimes be with troops, when they can act as chief umpires, and sometimes without troops, when they can

set the exercises; but sometimes, also, and often, exercises should be carried out without staff assistance—this system I will now explain.

Normally, in a higher command exercise, a scheme is set in which it is the rule and not the exception for the staff of each formation concerned to work out each problem, and every detail of each problem, whilst its general, the one man who should be tested, sits aside, often taking a *dolce far niente* interest in proceedings. When the pow-wow takes place, there is usually a prolonged discussion on the official form of the operation orders (incidentally a form seldom used in war), orders made out by the staff. This frequently leads to these humble servants being flayed alive whilst their masters frown opprobrium upon them even if they are not quite certain what all the trouble is about.

I have worked out scores of exercises, and taken part in dozens of staff tours, and though I am of opinion that my various generals seldom satisfied their intellectual hunger, I anyhow learnt this: that exercises set to bring out definite

tactical lessons are not worth the setting. What an exercise should bring out *is the personality and common sense of the generals.* What do they know and what do they not know; what will they *dare* to do, and what will they *not dare* to do? On such things will future victory and defeat depend, far more so than on dotting the i's and crossing the t's of operation orders. Therefore, I suggest this: that two or three times a year the generals should be assembled *without* their staffs, and set some quite simple Staff College exercise to work out in all its details—appreciations, operation orders, administrative instructions, etc., and that any general failing to obtain, say, fifty per cent of marks, should be compelled to resign his commission. If such a system were instituted, and it might with advantage be further elaborated, I am certain that the intellectual sphere of generalship would be vastly extended and the promotion list somewhat eased.

Again, the old system of manœuvres, since 1925 dropped by our army on the score of expense, was a very excellent one, not that it taught the regimental

officers or their men much, but that it tested out the generals. Concerning Lord Kitchener we read:

'After his brilliant victory at Omdurman, Lord Kitchener informed a foreign Military Attaché that the training of British generals would be defective so long as it was not decided in England to have manœuvres on a large scale. He admired the great German manœuvres, for they afforded the sole means by which a general could have practice in handling large masses. As soon as he was appointed Commander-in-Chief in India after the war, and had a free hand, one of his first measures was to arrange for manœuvres for the army in India on a scale never before attempted either in England or in one of her colonies.'[1]

This mental sphere, the sphere of the intellect, is a difficult one to examine and to suggest for. Schemes, exercises, manœuvres are in themselves little more than tests of knowledge; but generalship de-

[1] *The War in South Africa*, prepared in the Historical Section of the Great General Staff, Berlin, English Edition, vol. I, p. 218 (1904).

mands much more than this, for the true general is the creator quite as much as the applier of knowledge. Of what kind of knowledge? Psychological rather than operational. Here history can help us, and in place of being looked upon as a clay pit to dig brick out of, it should be considered an inexhaustible quarry of psychological ore. It does not really matter much what a certain general did at a certain date, but what *is* of importance is —*why* he did it in a certain set of circumstances. The object of education is not so much to discover 'what to think', as to learn 'how to think'. What is, or was, the governing reason of an action? What is, or was, the nature of an army's machinery; what can it, or could it, make? These are the type of questions an educated mind should ask itself.

I remember once attending some French manœuvres, when after an exercise General Debeney asked a divisional commander to explain his plan to him. This officer began—'My machine-guns, . . .' whereupon he was cut short by Debeney who excitedly roared out: 'Damn your machine-guns, I want *your* ideas!'

A well-stored memory is a great asset, for what a general knows is bound to tone and colour all his work. But storing must be methodical, the memory must not be like a stacked up second-hand bookshop; it must be rather like a carefully arranged library, in which the printed books are the experiences of others and the manuscripts one's own experiences. Yet in war it is not so much the knowledge contained in these books and these manuscripts which is so important, it is insight into the personality of their writers including oneself. 'Know thyself' are two words of profound wisdom; yet in our existing system, though self-knowledge cannot be denied, self-expression very largely is, because it so frequently clashes with the regulations. It is not recognized that the object of regulations and rules is to produce order in the fighting machine, and not to strangle the mind of the man who controls it.

'What is the good of experience if you do not reflect?' asked Frederick the Great —what indeed! And if reflection demands that one should be true to oneself,

surely also will it be enhanced if one has the courage to be true to others. Why are we soldiers so cretinous in this respect? Why have we such a horror for truth, for facts, for actualities, for possibilities, for probabilities and even for obvious certainties? The answer is because our system of mental discipline is cretinous. When we study the lives of the great captains, and not merely their victories and defeats, what do we discover? That the mainspring within them was *originality*, outwardly expressing itself in unexpected actions. It is in the mental past in which most battles are lost, and lost conventionally, and our system teaches us how to lose them, because in the schoolroom it will not transcend the conventional. The soldier who thinks ahead is considered, to put it bluntly, a damned nuisance. 'Fortunate is that army whose ranks released from the burden of dead forms, are controlled by natural, untrammelled, quickening common sense.'[1] Not only fortunate, but thrice blessed! Even if its general alone possesses this essential freedom. Yet what is the use of study-

[1] *Ibid.* vol. II, p. 344 (1906).

ing genius if we are not allowed to emulate it, and in our own small way to be guided by it?

It is fear, not so much conscious or intuitive, that a corporal may, through knowledge, learn to despise his captain, and that a captain may learn to despise his colonel, and so on upwards until the hierarchs are left naked and ashamed, which is the dry-rot of generalship. Intellectual courage is the antiseptic, and though theoretically the training of the general should begin when he is in the cradle, practically it must begin when as a youth he enters his military college or academy. In these centres of crystallized traditionalism what do we see? The inculcation of the spirit of generalship? —No! But the infiltration of what I will call the 'cricket complex'.

Games and sports have an immense value as physical relaxers and restorers; but in themselves they have no more military value than playing fiddles or painting postcards. All these pastimes and many others have some value, but no one of them has a paramount value in fashioning a general. What games did Han-

nibal, Julius Cæsar, Gustavus Adolphus, Frederick the Great or Napoleon play? Alexander, the greatest of them all, was willing to run with the sons of kings, but professional sports he considered unkingly if not contemptible. What has this 'cricket complex' inhibited us with? The comfortable theory that to amuse ourselves is the most perfect way of learning how to become soldiers. 'He who plays should be paid by promotion,' such is the unwhispered canon of this cult.

The result of this comfortable theory is mental strangulation. As the cricket ball bounds through the air the cannon ball bounds out of mind. Soldiership losing all stimulus becomes 'shop'. Things military become intensely boring, and every excuse is seized upon to regularize and methodize training and organization so that they will cease to worry us. After the World War we were told that there was not going to be another war for ten years. 'Thank God!' whispered the generals, 'we shall have retired by then; let us amuse ourselves—let us play.' This hypothetical ten years having now run their course, and though the world is

flatulent with war, another comfortable theory has been propounded, namely, that our army is a 'police force'. 'Thank God!' say the generals, now quite audibly, 'what does a policeman do? He walks up and down his beat and wears out shoe-leather! Well, then, let us emulate him; our men shall go on marching; in any case they have bayonets, whilst the police have only truncheons—and in the afternoon we can play a little game.'

From our system of 'what to think' I will turn to—'how to think', for until we begin to think correctly there can be no radical change.

In generalship, and for all that in citizenship as well, what does 'how to think' entail? A number of most difficult factors. First there is will, which lies at the bottom of personality. Elsewhere, I have called will 'the gravity of the mind'. I wrote, 'As the aim of gravity is to bring the stone (thrown into the air) to rest at the centre of the earth, where all activity ceases, so in war the aim of a commander's will is to bring his enemy to rest, to deprive him of all power of move-

ment."[1] Clausewitz says: 'Will is not an entirely unknown quantity; it indicates what it will be to-morrow by what it is to-day...each of the two opponents can ...form an opinion of the other, in a great measure, from what he is and what he does."[2]

Quite clearly does our system realize that will is a *known* quantity, for our regulations are never tired of reminding us that the supreme object in war is to impose our will upon our enemy; but in peace time this imposition is the perquisite of the few to the utter detriment of the many, and again very largely because of the canonization of the regulations. If what is written is holy writ, then it stands outside criticism and cannot be questioned. Those in control will not be asked awkward questions, and those under control, having to follow the regulations, do so automatically with the minimum appeal to their brains. 'How comforting,' they all instinctively cry,

[1] *The Foundations of the Science of War*, Colonel J. F. C. Fuller, p. 96 (1926).

[2] *On War*, Karl von Clausewitz, English Edition, vol. I, pp. 7-8 (1908).

'here is a book which spares us the trouble of thinking!' Thus are brains ossified and thus are battles lost, for only in the Spartan theory of war can a general know with any certainty what his opponent is going to do. This is why military thought always tends to get back to the 'push of pike' idea—it is as simple as pushing a 'pram' or a wheelbarrow—the tactics of the nursery and of a primitive agricultural age.

What does imposition of will demand? Reason; for in war each of the opposing wills is attempting to express a reason in order to gain an end. 'There must be a reason for each action carried out during a war, and...it must be a good reason or a bad reason; and if we have no reason at all, which has frequently happened in war, we reduce ourselves to the position of lunatics.

'If we understand the true reason for any single event, then we shall be able to work out the chain of cause and effect, and, if we can do this, we shall foresee events and so be in a position to prepare ourselves to meet them. Our reason is the director of our actions and also the spirit

of our plan. . . . We must analyse its motive and discover where it has failed us; thus we shall turn errors to our advantage by compelling them to teach us."[1]

Why do we so persistently fail to do so? Not only because we lack imagination, but because we suppress the little that we have. The reasoning of our tactics is not based on the possibilities, or even probabilities, of the next war, not even on the actualities of the last, but on the impossibilities of the one before it. If we wish to think clearly, we must cease imitating; if we wish to cease imitating, we must make use of our imagination. We must train ourselves for the unexpected in place of training others for the cut and dried. Audacity, and not caution, must be our watchword. Safety first may make a good midwife, but it will never make a good general. Safety first is like blocking every ball at cricket; anyhow, here is something military we can learn from this game.

Lastly, to turn to the moral sphere. Here the problem, or the main problem,

[1] *The Foundations of the Science of War*, Colonel J. F. C. Fuller, p. 94 (1926).

is a dual one, namely, to imbue a general with a sense of responsibility, which is the mainspring of decision, determination and resolution, and to free him from the trammels of his headquarters and so enable him to mix with his men, to show himself to them, to speak to them, and advertise that he is a live, a human, and a personal factor.

The first of these two problems depends upon a remodelling of our system of discipline, which is still largely eighteenth-century. In war, as in peace, individuality is far more important than uniformity; personality than congruity, and originality than conventionality. 'War', writes Clausewitz, 'is the province of chance. In no sphere of human activity is such a margin to be left for this intruder.'[1] As this is largely true, no regulations and no rules can cover the art of generalship. Like the great artist the general should possess genius, and if he does not, then no effort should be spared to develop his natural abilities, in place of suppressing them. Our existing

[1] *On War*, Karl von Clausewitz, English Edition, vol. I, p. 49.

system is, so I think, based on suppression, suppression to a large extent of an unconscious order. The old are often suspicious of the young and do not welcome criticism, yet without criticism, both destructive and constructive, there can be no progress. As I have already mentioned, the easiest course to adopt is to lay down rules and regulations which must be implicitly obeyed; yet chance knows no compulsion, and such rules and regulations are apt to cramp intelligence and originality. This is seen clearly from the frequent use with which 'Bolshevik' is applied to anyone who dares to think independently; yet if this 'vice' will teach us how to rely upon our common sense and how to speak frankly and without fear, what matters a name if common sense and self-reliance will help us win the next war. In place, so it seems to me, our present system of discipline, which is so truly Prussian and so untruly English, is responsible for creating what I will call the 'Cringe-viki', those knock-kneed persuasive tact-ticians who gut an army not with a knife but with a honeyed word.

The second of these two problems is of far greater simplicity. As a battalion commander is given a second-in-command, who should be his understudy and not an administrative hen brooding over the headquarter eggs, so should every commander in war, from brigadier upwards to general-in-chief, be given an *executive* second-in-command, who being able to replace him at any moment, will enable him to spend a far greater time than he now can with his troops. In peace time, during the collective training season, the roster officers, I have suggested, might frequently carry out such work. Should the general be killed, there will be little or no disorder, as there was when Stonewall Jackson fell at Chancellorsville; the second-in-command will carry on, the cry being: *Le général est mort, vive le général!* Such a system is so obviously necessary and so simple, that it passes my understanding why it has not long ago been adopted. The reason probably is, that in Continental armies the establishment of a chief of staff—a non-executive officer—has obscured the value of an executive one.

So far the head, now I will turn to the nerves—the staff.

When, a short time back, I hinted at a comparison between Grant's staff of 1864 and Sir Douglas Haig's staff of 1918, it may have seemed I suggested that the British Commander-in-Chief's staff should have in size approximated to Grant's. The answer is—'No' and 'Yes'. 'No', because it is obvious that war to-day is far more complex than it was during the American Civil War. 'Yes', because I am of opinion, that like practically every other headquarter staff in the war, G.H.Q. could have been reduced though certainly not to fourteen officers. Assuming, however, that it could not, it is not so much size which is the problem, as the contact which size is apt to establish with the general. Whilst in theory the idea of a staff is to relieve a general of work, in practice the last war certainly proved that the larger the staff was, the more a general became absorbed in *its* work. Each officer was another tentacle of the octopus.

The most practical way of overcoming this difficulty is to abolish the general

staff and replace it by the old-fashioned general's staff of aides-de-camp, and place the whole staff, the experts, advisers, etc., under a chief of staff with whom individual staff officers will establish contact. If this is done, then there is no excuse whatever for a general to get absorbed in staff work. His second-in-command will be at headquarters when he is out, and the only staff officer he need come into contact with is his chief of staff, whilst his own staff—the general's staff—is there not to advise him, but to see that his orders are obeyed by his subordinate commanders—these personal liaison officers are in fact an extension of his brain.

I now arrive at the third and final problem, namely, the influence of the army, and above all the influence of its weapons upon generalship. How can we reduce size and complexity, and so modify the dangers of the battlefield that our supply of actual and potential generals and generals-in-chief will not run dry before the war is won?

If I were to ask a watchmaker to make me a watch, would he select a pickaxe,

a crowbar and a steam-hammer as his tools? No—he would suit his tools to his craft. This is the point, and the most important point the theorists of war have overlooked. A general must be given an army he *can* command, and not merely an army he can launch into battle like a ship from her stocks. Had Alexander the Great inherited a Persian horde, he would not have got anywhere near the Indus, it is doubtful whether he would ever have got out of Greece. Give a modern general 2,000,000 soldiers, and equipped as they are to-day, such an army will possess a potential bullet-power of 15,000,000 rounds a minute. Yet in spite of this enormous fire-power, all art, strategical and tactical, will vanish; for all he can do with this mass is to advance upon his enemy, and attempt to swallow him up, as Pharaoh and his host were swallowed up by the Red Sea; for such hordes can no more be manœuvred than could the herded multitudes of Xerxes and Darius. Yet if they stand still and fire, there is no breaking them by fire.

Our present conception of war, con-

ceived in France, and during the last century elaborated out of all recognition by Prussia, is monstrous, costly and brutal in the extreme. It is the antithesis of Ruskin's heroic ideal; for to 'activate' it, it demands the herding together of millions of peasants and artisans, and then slaughtering them on wholesale lines. It is nothing more or less than 'the rage of a barbarian wolf-flock'.

How can we change this? By disembarrassing our minds of the horde idea, the idea of brute masses of men and of Mongol inundations. Even if we cannot, or will not, do so, science and industry will do this for us. In their first great lap, from about 1850 until the last war, these twin world-powers gave us quantity; now they are beginning to give us quality, motorization and mechanization, which in the end are as inevitable as the superiority of infantry over cavalry once fire-arms were invented.

These two powers will not only give us quality, but they will vastly reduce the size of armies, for the cost of motorized and mechanized forces will prohibit the raising of armoured hordes. They will

simplify war, for whilst at present we are complicating military organization by mixing the new and the old arms, as was done and with similar results in the sixteenth and seventeenth centuries, once we realize that to harness a tank to an infantryman is as foolish as harnessing a tractor to a mule, we shall find that an armoured force is as simple to handle and command, as was the army of Marlborough when compared to the army of Gustavus Adolphus.

What repercussions will mechanization have upon generalship? First, the comparative smallness and ease of movement of armoured forces will provide the average general with a far better balanced weapon than the unarmoured horde. Secondly, as armour will cut out the bullet, the danger of a country running dry of generals, if they act as generals should, will be vastly reduced. Thirdly, and this is the most important point of all, as mechanized warfare will approximate in many ways to warfare at sea, a general who does not man a tank and control his tanks from a tank, will be about as much use to his army as an admiral who, re-

fusing to board his flagship, prefers to row about in a dinghy.

So, at length, by one of those curious and mysterious twists in the spiral of human progress, we are, as if by a magician's wand, wafted back to the days of Henry V, Edward the Black Prince and Richard Cœur de Lion. Therefore, unless our generals show the courage of these men, as well as don their armour, in its modern form of bullet-proof steel, mechanization will prove of no more value than metallic junk.

In such wars as these, who will be the better general, that is the general the better equipped physically, intellectually and morally? Will it be the man of sixty-five or of forty-five, of fifty-five or of thirty-five? for there will be no dug-outs, no fixed offices, no châteaux, in place—a bumping belching machine, and much breakfasting under the stars. Obviously the answer is that in nine cases out of ten the younger man will beat the older man, as easily as David beat Goliath—and David was a mechanical expert.

CONCLUSION

Now to conclude this brief study of the most tremendous problem which will face us in the next war—our generalship—all I will say is this: we are not a continental nation, therefore let us cease copying continental methods of generalship, and instead follow our own. Did Wolfe and Moore die for nothing that we should forget them for Teuton and Frank? Did Wellington rally his squares at Waterloo, and Roberts lead the van of his army to Kandahar merely to entertain us when we have nothing better to do than read their histories on a dull winter evening? We may be a nation of shopkeepers, but also are we not a nation of leaders? Look at the map! Every red mark and line was won for us by a band of determined and resolute men whose leaders would have scorned the idea of not sharing toils and dangers with them. Therefore, I say, let us have done with stockyard generalship, and get back to the old idea which has made us what we are: that a general, however exalted be his rank, in body, heart and mind is still a soldier.

APPENDIX

THE AGES OF 100 GENERALS

THE following list is unprejudiced by any idea of proving youth to be in itself a military virtue. The names and events mentioned in it were jotted down from memory, the ages and dates being afterwards looked up. In several cases I had to change my original selection as the date of birth was unknown. I have not included names of generals after 1866, because from that date onwards generalship becomes senile. The interesting points to note are: that according to this list the average age, or zenith, of generalship is 40.36 years; that 74 per cent of the generals mentioned are forty-five years old or under, and that 4 per cent only are sixty or over.

If we now make a graph of the above showing the number of generals according to their ages (*see* Graph No. 1), we find that the period of most efficient generalship lies between the years thirty and forty-nine, and that the peak is reached

between the years thirty-five and forty-five. Compare these figures with Graph No. 2, which shows the average age, year by year, between January 1914, and January 1932, of all Field-Marshals, holding appointments, Generals and Lieutenant-Generals in the British Army (excluding India and 'Ghosts') on the active list. From this second graph the average age throughout this period works out at 59.9 years; that is approximately ten years outside the period of 'most efficient generalship'. As far as generalship is concerned this shows clearly the reason why throughout history great generals have been few in number—peace conditions do not fit war requirements. Finally, Graph No. 3 is a composite diagram of the period 1919-1932 taken as a whole, showing the numbers of Generals according to age. From this graph it will be seen that the period of 'greatest employment', ranges between the years fifty-five and sixty-five and that the peak is reached between the years fifty-eight and sixty-two, which, I think, compares favourably with most foreign armies except the Russian, in which, I am told,

the higher commanders average between forty and forty-five years of age. As to these figures I have no proof.

Concerning the influence of youth on generalship, the following letter written by Bonaparte on January 20th, 1797, and addressed to the Directory is of interest:

'. . . As to generals of divisions, unless they are officers of distinction, I beg you not to send any to me; for our way of waging war is so different from others, that I do not wish to entrust a division to a general until I have tested him out in two or three operations. . . . It is essential for the Army and the Republic to send to me here young people (*des jeunes gens*) who are learning how to carry out a war of movement and manœuvres; it is wars of this nature which have enabled us to gain such great successes in this army.'

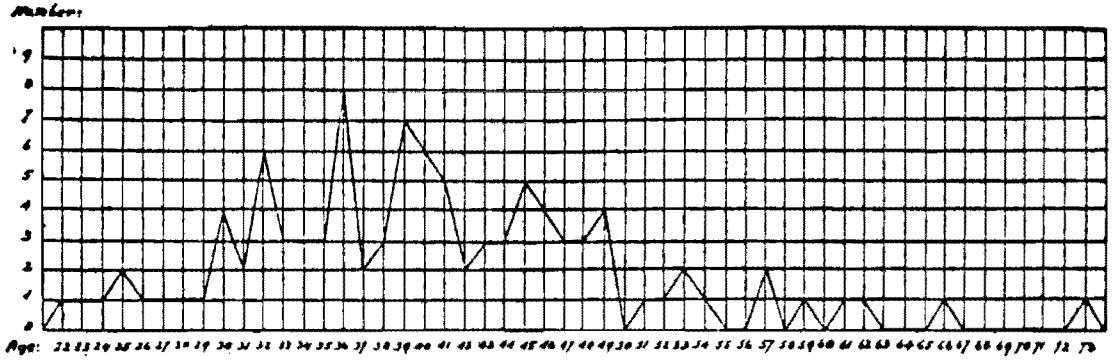
At this date Bonaparte was twenty-seven years old and already had to his credit one of the most remarkable campaigns in history.

Name	Event	Date		Age
Xenophon	*Battle of Cunaxa*	401	B.C.	29
Epaminondas	*Battle of Leuctra*	371	"	47
Philip of Macedon	*Captain-General of Greece*	337	"	46
Alexander the Great	*Battle of Arbela*	331	"	25
Eumenes	*Defeat of Craterus and Neoptolemus*	321	"	39
Agathocles	*Invasion of Carthage*	310	"	45
Demetrius	*Siege of Rhodes*	305	"	32
Pyrrhus	*Battle of Asculum*	279	"	39
Philopœmen	*Battle of Mantinea*	208	"	45
Hannibal	*Battle of Cannae*	216	"	33
Scipio Africanus	*Battle of Zama*	202	"	33
Gaius Marius	*Conquest of Numidia*	106	"	49
Julius Cæsar	*Battle of Lyons*	58	"	44
Arminius	*Battle of Teutoburger Wald*	9	A.D.	27
Alaric	*Sack of Rome*	410	"	40
Theodoric	*Battle of Sontius (Isonzo)*	489	"	35
Clovis	*Battle of Poitiers*	507	"	41
Belisarius	*Battle of Tricameron*	535	"	30
Chosroes I	*Syrian Campaign*	571	"	40
Charles Martel	*Battle of Tours*	732	"	44
Charlemagne	*Capitulation of Pavia*	774	"	32
King Alfred	*Siege of London*	895	"	47
Mahmud of Ghaznl	*Indus Campaign*	1001	"	30
William I (England)	*Battle of Hastings*	1066	"	39
Saladin	*Conquest of Syria*	1174	"	30
Richard I (England)	*Battle of Arsuf*	1191	"	34
Jenghiz Khan	*Crossing of the Great Wall of China*	1213	"	51
Simon de Montfort	*Battle of Muret*	1213	"	53
John (England)	*Battle of Bouvines*	1214	"	47

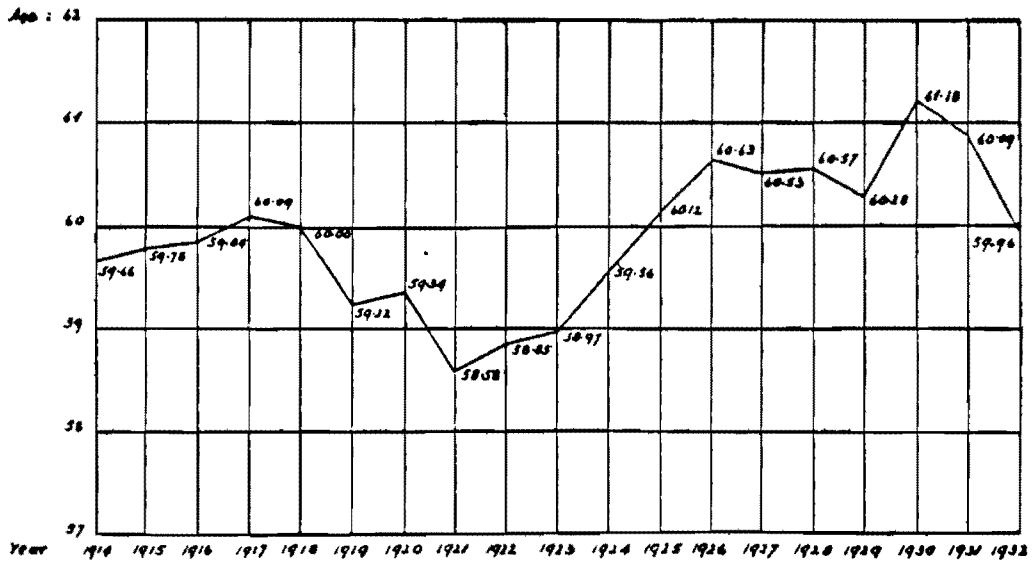
Name	Event	Date	Age
Edward I (England)	*Campaign in Wales*	1277 A.D.	38
Robert the Bruce	*Battle of Bannockburn*	1314 "	40
Edward III (England)	*Battle of Crécy*	1346 "	34
Timur	*Indus Campaign*	1398 "	62
Henry V (England)	*Battle of Agincourt*	1415 "	28
Charles VIII (France)	*Conquest of Italy*	1494 "	24
Gonsalvo de Cordoba	*Italian Campaign*	1495 "	42
Gaston de Foix	*Battle of Ravenna*	1512 "	23
Cortes	*Conquest of Mexico*	1521 "	36
Pescara	*Battle of Pavia*	1525 "	36
William the Silent	*Defence of the Netherlands*	1568 "	35
Henry IV (France)	*Battle of Ivry*	1589 "	36
Maurice of Nassau	*Defence of the Netherlands*	1600 "	33
Gustavus Adolphus	*Battle of Lützen*	1632 "	36
Wallenstein	*Battle of Lützen*	1632 "	49
Baner	*Battle of Wittstock*	1636 "	40
Torstensson	*Battle of Breitenfeld*	1642 "	39
Duc d'Enghien	*Battle of Rocroi*	1643 "	22
Cromwell	*Battle of Naseby*	1645 "	46
Montecucculi	*Battle of Zusmarshausen*	1648 "	39
Monk	*The Dutch Wars*	1653 "	45
Turenne	*Battle of the Dunes*	1657 "	46
Luxemburg	*Retreat to Maestricht*	1673 "	45
Marlborough	*Battle of Blenheim*	1704 "	54
Eugène	*Battle of Blenheim*	1704 "	41
Peterborough	*Campaign in Spain*	1706 "	48
Berwick	*Battle of Almanza*	1707 "	37
Charles XII (Sweden)	*Battle of Holowczyn*	1708 "	26

Name	Event	Date	Age
Saxe	*Battle of Fontenoy*	1745 A.D.	49
Frederick the Great	*Battle of Rossbach*	1757 "	45
Seidlitz	*Battle of Kolin*	1757 "	36
Clive	*Battle of Plassey*	1757 "	32
Amherst	*Capture of Louisburg*	1758 "	41
Wolfe	*Capture of Quebec*	1759 "	32
Washington	*Campaign of Yorktown*	1781 "	49
Greene	*Battle of Guildford Court House*	1781 "	39
Dumouriez	*Battle of Jemappes*	1792 "	53
Hoche	*Battle of Frösch-weiler*	1793 "	25
Moreau	*Battle of Turcoing*	1794 "	31
Jourdan	*Battle of Fleurus*	1794 "	32
Masséna	*Battle of Rivoli*	1797 "	41
Desaix	*Battle of Marengo*	1800 "	32
Lake	*Battle of Lascari*	1803 "	59
Soult	*Battle of Austerlitz*	1805 "	36
Napoleon	*Battle of Jena*	1806 "	37
Lannes	*Battle of Aspern-Essling*	1809 "	40
Arch-Duke Charles	*Battle of Aspern-Essling*	1809 "	38
Moore	*Battle of Corunna*	1809 "	48
Gérard	*Battle of Borodino*	1812 "	39
Wellington	*Battle of Salamanca*	1812 "	43
Ney	*Battle of Borodino*	1812 "	43
Blücher	*Battle of Waterloo*	1815 "	73
Bugeaud	*Campaign in Algeria*	1836 "	52
Pélissier	*Storming of Sebastopol*	1855 "	61
Nicholson	*Siege of Delhi*	1857 "	35
Jackson	*Shenandoah Valley Campaign*	1862 "	38
McClellan	*Peninsula Campaign*	1862 "	36
Grant	*Capture of Vicksburg*	1863 "	41

Name	Event	Date	Age
Longstreet	*Battle of Chickamauga*	1863 A.D.	42
J. E. B. Stuart	*Battle of Chancellorsville*	1863 "	30
Mosby	*Fairfax Court House Raid*	1863 "	30
Beauregard	*Siege of Petersburg*	1864 "	46
Forrest	*Paducah Raid*	1864 "	43
Early	*Shenandoah Valley Campaign*	1864 "	48
Joseph Johnston	*Atlanta Campaign*	1864 "	57
Lee	*Wilderness Campaign*	1864 "	57
Hancock	*Wilderness Campaign*	1864 "	40
Sherman	*Atlanta Campaign*	1864 "	44
Gordon	*Suppression of Taiping Rebellion*	1864 "	31
Sheridan	*Battle of Five Forks*	1865 "	34
Moltke	*Battle of Königgrätz*	1866 "	66



Graph No. 1.—One hundred Generals, showing their ages at the dates of the events mentioned in the Appendix.



Graph No. 2.—The average age of British Generals and Lieutenant-Generals, year by year between 1914 and 1932.

Graph No. 3.—The numbers of Generals and Lieutenant-Generals in the British Army, according to age, between 1919 and 1932.

☆U S GOVERNMENT PRINTING OFFICE : 1987-754-001/62070